Lesson 6.3 Practice: Operations with Radical Expressions

School Launch · Algebra II · Unit 6: Radicals and Rational Exponents · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Simplify: $6\sqrt{8} + 6\sqrt{18}$. EASY

2. Simplify: $1\sqrt{12} + 1\sqrt{27}$. EASY

3. Simplify: $3\sqrt{20} + 2\sqrt{45}$. EASY

4. Simplify: $(1 + \sqrt{2})(4 - \sqrt{2})$. MEDIUM

5. Simplify: $(3 + \sqrt{2})(5 - \sqrt{2})$. MEDIUM

6. Simplify: $(5 + \sqrt{5})(4 - \sqrt{5})$. MEDIUM

7. Simplify: $(2 + \sqrt{2})(1 - \sqrt{2})$. MEDIUM

8. Simplify: $\sqrt{3}(4\sqrt{6} - \sqrt{24}) + (4\sqrt{3})^2$. HARD

9. Simplify: $\sqrt{2}(4\sqrt{4} - \sqrt{16}) + (3\sqrt{2})^2$. HARD

10. Simplify: $\sqrt{2}(5\sqrt{4} - \sqrt{16}) + (1\sqrt{2})^2$. HARD